Effects of Narrative Versus Informational Texts During Read Alouds on Language and Vocabulary Acquisition

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Chapter 1: Introduction

Characteristics of Emergent Literacy

Emergent literacy is the knowledge that students obtain regarding reading and writing before they are actually provided with formal reading instruction. The components of emergent literacy lay the groundwork for more formal reading instruction. These skills include oral language, story comprehension, concepts about print, and letter identification (Reese & Cox, 1999). Emergent literacy skills help facilitate the acquisition of letter knowledge and phonemic awareness (Whitehurst & Lonigan, 1998). The emergent literacy approach is in contrast to the developmental approach which posits that children naturally reach a point where they are able to read (Adams, 1990). Whereas the developmental approach is stage-like, the emergent literacy perspective presumes that literacy acquisition occurs on a continuum (Ehri & McCormick, 1998; Whitehurst & Lonigan). The reading behaviors expressed at different stages along the continuum may seem unexpected; however, these early skills are setting the stage for advanced literacy behaviors (Ehri & McCormick).

Whitehurst and Lonigan (1998) describe two domains for emergent literacy skills. These are outside-in and inside-out processes. The outside-in process is representative of the tools children use to understand the context for their reading and writing, whereas inside-out units are the rules the child needs to translate print to sounds. The inside-out domain encompasses skills related to decoding, and facilitates phonological awareness. Vocabulary and comprehension skills are related to outside-in processes. While it is rarely argued that both domains are critical for successful literacy skills (Hoover &
Gough, 1990), the direct teaching of outside-in skills is rarely observed (Coyne, Simmons & Kame’enui, 2004; Whitehurst & Lonigan). The differential attention given to each of these domains could be due in part to when the importance of the domain emerges. In early reading acquisition, the inside-out, or decoding, skills are given primary attention. The outside-in skills gain focus as the curriculum shifts from decoding to comprehension (Whitehurst & Lonigan). While these domains are described separately, there is a bi-directional relationship between them, and it is proficiency in both domains that characterizes a good reader (Hoover & Gough; Wilkinson & Silliman, 2000). More specifically Dickinson and colleagues (2003) found that even after controlling for socio-economic status (SES) and age of the child, vocabulary (outside-in) and phonological awareness (inside-out) were each unique and significant predictors of literacy acquisition.

**Vocabulary and Emergent Literacy Skills**

While current curriculum and instructional practice do not adequately reflect the importance of vocabulary instruction for the successful acquisition of reading comprehension, there is a breadth of research supporting the practice (National Reading Panel, 2000; Speece, Roth, Cooper & De La Paz, 1999). Snow, Burns and Griffin (1998) showed that measures of oral language and receptive vocabulary in kindergarten were significant predictors of both fourth and seventh grade reading comprehension. Similar research conducted by Sénéchal, Ouellette and Rodney (2006) found that beginning of kindergarten vocabulary was not a significant predictor of word reading in first grade, after controlling for early literacy skills, phonological awareness and parent education; however, analogous to the Snow and colleagues findings, kindergarten vocabulary was a
significant predictor of fourth grade reading comprehension. Even after controlling for reading fluency, and the aforementioned variables, kindergarten vocabulary accounted for 15% of the variance in fourth grade reading comprehension. It is interesting to note that Sénéchal and colleagues did not find a significant predictive relationship between kindergarten vocabulary and first grade reading comprehension. This might be explained by the fact that in first grade students are not likely to encounter words in print that are not in their speaking vocabulary (Yopp & Yopp, 2006).

Additional studies have identified a predictive relationship between kindergarten oral language skills and second grade reading comprehension (Catts, Fey, Zhang, & Tomblin, 1999; Roth, Speece, & Cooper, 2002). Roth and colleagues found that while measures of kindergarten phonological awareness were not predictive of reading comprehension in first or second grade, oral language skills significantly and uniquely predicted first and second grade reading comprehension. Catts and colleagues also observed a small predictive relationship between kindergarten expressive and receptive vocabulary and second grade reading comprehension. While there is some discrepancy regarding when oral language skills begin to influence reading comprehension, the presence of such a relationship is not disputed (Whitehurst & Lonigan, 1998).

Another interesting finding is the predictive relationship between oral language and pre-literacy skills, specifically phonological sensitivity (Dickinson, McCabe, & Essex, 2006). In their synthesis of the research, Dickinson and McCabe (2001) found that a consistent relationship between receptive vocabulary and story understanding, print knowledge, concepts about print, and phonological awareness were observed. Sénéchal
and colleagues (2006) found that kindergarten vocabulary explained 7% of the observed variance in kindergarten reading comprehension, and 4% of the variance observed in phonological awareness. These results were observed even after controlling for parent literacy, invented spelling, listening comprehension, and alphabetic knowledge. The effect of kindergarten vocabulary was seen after first grade, with vocabulary predicting 4% of the variance in first grade phonological awareness. Alphabetic knowledge was the only other significant predictor. Similar results were found using beginning of first grade vocabulary and Spring of first grade decoding scores. Students with higher initial vocabulary scores showed a significantly faster growth rate for decoding skills (Connor, Morrison, & Katch, 2004).

While these findings suggest that students will learn to acquire early literacy skills faster if they have larger vocabularies, this is not always the case. Speece and colleagues (1999) found that only those kindergarten students high in oral language appear to be at an advantage for literacy acquisition measured two years later. Those students who displayed average and low kindergarten oral language skills did not show higher rates of literacy acquisition two years later; however, significant gains in literacy acquisition were seen in their peers with above average oral language skills. The authors are careful to note that the effects of oral language could emerge at some later point, but more immediate benefits of oral language on literacy were only evident in those students with the highest oral language scores. Other environmental factors such as SES and family literacy may have also mediated the relationship.
It is unclear exactly why vocabulary is a significant predictor of phonological awareness, but researchers have hypothesized about possible reasons. Yopp and Yopp (2006) suggest that in the beginning stages of literacy, when students first start to decode and make the connections between letters and sounds, it helps if they know what the word means and/or if they have heard it before. It is easier to learn to read a new word if it has previously been presented to the child orally. It is in the time before direct phonological awareness training has begun that vocabulary size is believed to have the most effect (Metsala, 1999). As Yopp and Yopp suggest, a larger vocabulary and overall stronger oral language skills are positively related to the acquisition of phonological awareness, and phonological awareness facilitates early literacy.

Stanovich (1986) describes the relationship between oral language and phonological awareness as bootstrapping, where early oral language skills may facilitate phonological awareness acquisition, which will lead to more proficient reading. The more print the student is exposed to, the more vocabulary he/she will encounter in text. This heightened rate of exposure results in more incidental learning of vocabulary. It is at this point that the number of vocabulary words proficient and poor readers know becomes even more disparate. Referred to as the paradigm effect, students with larger vocabularies have an easier time assimilating new words into existing schemas (Metsala, 1999; Temple & Snow, 2003). Essentially students with higher vocabularies need less exposure to unfamiliar words before they will learn them (Cunningham & Stanovich, 1997). Conversely, students with smaller initial vocabularies will not learn new words as quickly and will subsequently be exposed to less print, resulting in a slower rate of new
vocabulary acquisition. Stanovich referred to this cycle of increasing deficit as the Matthew Effect (Stanovich).

**Purpose of This Study**

The research base strongly suggests that a student’s early vocabulary is important for long-term success related to decoding and comprehension. The primary purpose of this study is to examine one possible method for increasing vocabulary knowledge in economically disadvantaged preschool children. Specifically, the study seeks to assess the differences in classroom discussion and oral language gains as a function of text type. Furthermore, these differences will be analyzed considering a possible teacher or school effect. This study is unique in that, experimental manipulation of text types during read alouds has not yet been performed. It is unclear what, if any, differential effect text type will have on student achievement. As the use and availability of information texts in classrooms is scant (Duke, 2000), significant differences in student achievement would have important curricular implications.

A secondary purpose of this study is to investigate how well measures of standardized receptive and expressive vocabulary can be predicted from initial test scores. Students who have lower initial scores are not expected to show as much growth as their relatively higher skilled peers. This analysis will help illustrate how much influence initial skill has on post-test scores.

Three research questions will be explored:

1. How does language and student-teacher interactions change as a function of text type? For purposes of this analysis, language and student-teacher interactions are
measured by considering the following variables: mean length of utterances (MLU) for both teacher and students, the number of ‘wh’ questions asked by the teacher, the frequency of common versus uncommon words spoken by teacher and students, number of children participating in each discussion, and how often the target words are used by the teacher and students.

2. Is there a significant difference in target word learning based on the type of text from which the words were derived?

3. To what extent does initial receptive and expressive vocabulary, post-test target vocabulary scores and the discussion/interaction variables from research question 1 predict receptive and expressive vocabulary skill approximately 14 weeks later?

Statement of the Problem

Why do some children possess rich vocabularies while other students do not? An initial thought may be that vocabulary is closely integrated with cognition; however, environmental and instructional factors appear to play a much larger role (Cunningham & Stanovich, 1997).

SES and Vocabulary

The home environment is an integral component of early vocabulary acquisition. Students coming from a home where less sophisticated and less frequent discourse is used, come to school with smaller vocabularies (Biemiller, 2006). On average, by the age of three, children of professional parents have heard about 40 million words, children of working class parents have heard 20 million words by age three, and only 10 million words are heard by children in families receiving Aid to Families with Dependent
Children (AFDC) (Hart & Risley, 1995). Such differences in spoken language correspond to vocabulary acquisition.

White, Graves and Slater (1990) found that lower SES third graders knew about 10,000 words, whereas higher SES third grade students knew approximately 15,000 words. White and colleagues found that low SES minority students gained about 3,500 words a year while high SES non-minority students showed vocabulary growth rates of approximately 5,200 words per year. Biemiller and Slonim (2001) found that all students gained new vocabulary at approximately the same rate, regardless of the relative size of their existing vocabulary. Since a vocabulary gap of approximately several thousand root words has been observed between the lowest and highest preliterate students (Biemiller & Slonim), it is difficult to determine whether later disparities in vocabulary growth rates were present all along or reflect acquisition deficits after the student has become literate.

Teaching of Vocabulary

Even though most teachers agree that rich vocabularies are important for literacy development, the majority of teachers do not allocate classroom time for directly teaching vocabulary (Blachowicz & Fisher, 2000). When vocabulary instruction does occur it is usually around third grade, after the deficit has already been established (Biemiller, 2006). There are three primary methods for vocabulary growth: direct instruction, incidental learning, and a combined approach. Direct vocabulary instruction involves explicit methods where the student is given the word and a definition. In contrast, incidental learning occurs through contextual exposure to print (Penno, Wilkinson, & Moore, 2002; Robbins & Ehri, 1994).
Of the minimal vocabulary instruction that does occur in the classroom, direct instruction is the most common (Beck, McKeown, & Kucan, 2002); however, due to the fact that observational studies reveal little actual instruction, it is suggested that most of the learning that occurs is incidental (Jenkins, Stein, & Wysocki, 1984). When direct instruction occurs, it does not account for much, if any, of the observed vocabulary growth (Jenkins et al.). Beck and colleagues explain that when students are instructed to look up the definition of a word, they are often looking for a synonym or they tend to synthesize multiple definitions into a conglomerate that bears little relation to the actual meaning. Pre-literate students need multiple exposures to the word, and often times that is not sufficient if the word is not presented in context. The direct instruction method does not lend itself to contextual exposure, and rarely generalizes to newly encountered contexts. Thus, there is little empirical evidence to support the use of direct vocabulary instruction in the absence of embedded exposure across, multiple contexts (Beck et al.).

There is evidence to support the notion that students can learn new vocabulary from incidental encounters with unfamiliar words, through reading, listening or conversation. Students in grades 3-8 have been shown to incidentally learn vocabulary from independent reading (Nagy, Anderson, & Herman, 1987). Graves (1989) found that even poor readers were able to correctly use context clues to determine meaning; however, they had more difficulties when trying to generalize novel words to new contexts. Younger students can also benefit from incidental learning. Kindergarten students were able to recognize unfamiliar words that were presented to them during a read aloud. There was a significant interaction effect for vocabulary knowledge prior to
beginning the read aloud. Students with lower starting vocabularies were just as likely to
correctly identify words derived from the read alouds as words that were not contained
within the read aloud books; however, students with higher initial vocabularies were
more likely to only correctly identify words they had heard during the read aloud
(Robbins & Ehri, 1994).

There are several aspects to incidental word learning that enhance its
effectiveness, and provide more support to lower achieving students. The first is repeated
exposure to vocabulary (Nagy et al., 1987; Penno et al., 2002). Robbins and Ehri (1994)
found that even when the target words were not emphasized during the read aloud,
kindergarten students were more likely to remember vocabulary they had heard four
times compared to only twice. This effect was observed for students with high and low
starting vocabularies. Jenkins and colleagues (1984) found that there is a point of
diminishing returns for exposure. Multiple exposures to target words resulted in higher
scores on sentence completion and word definition tasks, but performance began to
decline after 6 exposures. While performance after 10 exposures was still 16-27% above
baseline, this study suggests that there may be an optimal amount of exposures. Like the
Robbins and Ehri work, Jenkins and colleagues found that more skilled readers profited
most from vocabulary instruction, but increased performance was seen for all students.

In addition to repeated exposure it is also necessary that the students understand
the word and comprehend the context in which the word is being presented (McKeown &
Beck, 2004). Murphy and Brown (1975) examined incidental word learning of preschool
children. They found that young childrens’ vocabulary acquisition varied as a function of
how well they comprehended the material. The better they understood, the more they retained. Results of the study also suggested that preschool students did not do well with direct instruction or similar memorization tasks. Beck and colleagues, (2002) examination of contextual support revealed that rarely is the meaning of the word clear from context clues. To illustrate this point they blacked out known words and asked adults to identify the missing words using contextual clues. Adults were able to correctly identify the missing word less than half of the time. These findings highlight the importance of explaining and discussing vocabulary encountered in the text.

From the current research on vocabulary instruction, it is suggested that an incidental approach that includes direct instruction within context is the most beneficial (Casbergue & Plauché, 2003; Penno et al., 2002). This approach is characterized by multiple exposures to the word across various contexts. For younger children, book illustrations will further facilitate new word learning. Perhaps more importantly though is the active participation of the student in word learning. Students should discuss and assimilate a newly acquired word into their play and speech as often as possible (Blachowicz & Fisher, 2000; Coyne et al., 2004). It is very unlikely that students are going to be able to learn a word well enough to actually use it during speaking or writing if they have only been given explicit instruction in the absence of relevant context (Nagy & Scott, 2000). Sénéchal (1997) experimentally manipulated the combined approach and found that primary and preprimary students understood 4% more words after one read aloud exposure. Stories read three or four times, resulted in 10-15% vocabulary growth. The most gains were observed in the combined condition. Vocabulary growth between
14-29% was observed when stories were read with an explanation of target vocabulary words.

**Importance of Proposed Study**

The primary importance of this study is to investigate the potential benefits of using non-fiction texts during read alouds. Specifically, this study will examine the differences in student-teacher discourse during read alouds and vocabulary gains as a function of text type. Previous research has suggested that there may be potential benefits to using non-fiction text for read alouds; however, there have not yet been any studies experimentally manipulating text type during read alouds. Data gleaned from this study will help provide a clearer picture as to the benefits of using non-fiction and fiction texts during read alouds. Such analysis will help guide this aspect of classroom instruction, especially for those students entering school with lower vocabularies.

A corollary benefit of the present study is to examine the growth of expressive and receptive vocabulary over the 12-week read aloud period. Research consistently shows that children who begin school with smaller vocabularies (Biemiller, 2006) have lower rates of growth (White et al., 1990). The present study will help clarify how well initial vocabulary scores predict later skill levels.
Chapter 2: Selected Literature Review

*Read Alouds and Vocabulary Acquisition*

Students’ earliest interactions with language are considered contextualized. This type of language is embedded in context, with both the speaker and the recipient of the language having a shared context from which meaning can be inferred. The shared context is usually a conversation like interaction, where both the speaker and listener are present and participating. Contextualized language usually provides the speaker and listener with more information and is composed of less sophisticated language (Nagy & Scott, 2000). Decontextualized language relies heavily on the words themselves to convey the meaning. The audience is typically unknown and there is little other than the language itself available to help convey meaning. The vocabulary tends to be richer and more sophisticated (Nagy & Scott). Being able to understand decontextualized language is an essential component to being able to comprehend text. The benefits of exposure to decontextualized language have been seen both in the home (Beals & Temple, 1992; Weizman & Snow, 2001) and the classroom (Beck & McKeown, 2001; Roth et al., 2002; Yopp & Yopp, 2006). The use of less common vocabulary, as determined by the most common 3,000 words, results in the highest gains. Weizman and Snow refer to use of such uncommon words as sophisticated language.

One method that has been widely suggested in the literature as a way to expose children to vocabulary and characteristics of text is through reading aloud (Beck & McKeown, 2001; Chomsky, 1972: Whitehurst et al., 1988). Anderson and The National Commission on Reading suggest, “the single most important activity for building the
knowledge required for eventual success in reading is reading aloud to children” (1985, p. 23). While it has been argued that this may have been an overzealous statement, reading aloud to children brings them in contact with grammar and literacy conventions that are not typically found in spoken language (Feitelson, Kita & Goldstein, 1986; McKeown & Beck, 2006). This exposure to decontextualized language is considered a primary benefit of read alouds (McKeown & Beck, 2004; Nagy & Scott; Whitehurst & Lonigan, 1998). Discrepancies in the efficacy of read alouds are most likely a result of inconsistency of methods. There are effective and ineffective ways to read aloud to students, and failure to incorporate effective methods typically results in no significant gains in vocabulary or literacy skills (Beck & McKeown, 2001; Brabham & Lynch-Brown, 2002).

Efficacy of Read Alouds

Read alouds in the home. A large portion of the read aloud literature is comprised of home-based interventions. There is good reason for this, as children in low SES households are exposed to far fewer read-alouds, and subsequently text, than their higher SES peers (Whitehurst et al., 1994). The difference in text exposure, coupled with other environmental factors, results in some students entering school considerably less experienced with books and literacy (Scarborough & Dobrich, 1994). Children’s knowledge of story books has been found to be a significant predictor of both expressive and receptive vocabulary (Sénéchal, LeFevre, Hudson & Lawson, 1996). Although reading aloud has been purported to be one of the best things that parents can do to help their children become literate (Anderson et al., 1985), a synthesis of the research suggests
that shared book reading in the home may be not be as effective as previously thought. Research has strongly suggested that it is the quality of the book reading that is important, not necessarily the quantity (Scarborough & Dobrich, 1994).

The current body of research suggests that a parent-child read aloud should include high levels of child involvement, and corrective feedback should be provided when necessary. Another integral component of individual read alouds is scaffolding. The parent should try and ask questions that reflect developmental changes in the child. For example if the child is already familiar with all of his/her colors, questions regarding colors should not be asked. The parent or caregiver should instead ask questions that will increase the child’s knowledge and familiarity with more abstract concepts (Whitehurst et al., 1988).

Whitehurst and colleagues (1988) developed a detailed method of reading aloud referred to as dialogic reading. Dialogic reading consists of child participation, providing feedback to the child, and scaffolding of questions. This method of home read alouds consistently results in higher vocabulary gains for young children. In one study 20 children between the ages of 21 and 35 months were randomly assigned to control and experimental groups. The experimental group received dialogic reading, and the control group received a read aloud based on no specific training. The experimental group showed post-test and 6-month follow-up vocabulary gains from 6 months to 8.5 months above those of the control group. Related research has resulted in similar findings with one principle divergence. The primary difference in results lies in whether expressive and receptive or just expressive vocabulary gains are observed. When interpreting the results
it is difficult to ascertain whether the lack of significant findings are due to small sample sizes and insufficient power, or that the intervention was not powerful enough to cause true gains (Hargrave & Sénéchal, 2000; Whitehurst et al., 1994; Whitehurst et al., 1988).

**Read alouds in the classroom.** The success of dialogic reading in the home has lead researchers to examine its efficacy in the classroom. Unfortunately dialogic reading is an individually administered intervention, making it somewhat impractical in the typical preschool classroom. Whitehurst and colleagues (1994) expanded the individual model to accommodate small groups of three-year-old students. Group size varied, but no group was larger than five students. Students in the dialogic reading group showed significant immediate and long-term gains in expressive vocabulary.

Other researchers have experimentally evaluated dialogic-like reading practices for the whole-class. Wasik and Bond (2001) employed a study that tracked expressive, receptive and target vocabulary gains for 121 low-income preschoolers. The intervention was implemented for 11 weeks. The students in the experimental condition were questioned during the read aloud and were encouraged to participate and engage in dialogue with the teacher and other students. Significant gains were observed for expressive, receptive and target vocabulary measures.

Similar results were found in a shorter implementation of an interactive read aloud (Hargrave & Sénéchal, 2000). Students were read aloud to for four weeks. Both the experimental group and the control group were exposed to the same books for at least 10 minutes a day; however, no maximum time was established. The authors were careful to point out that the interactive nature of the experimental group read aloud was more likely
to result in longer sessions. Like the work of Whitehurst and colleagues (1994), gains in expressive and target word vocabulary were observed, but there was no significant growth in receptive vocabulary. The observed expressive and target word vocabulary gains were analogous to four months of growth, and achieved in only four weeks. Methodological concerns with this study involve floor effects for the receptive vocabulary measure. Basal was unable to be established for 33% of the students. This may help explain why significant gains in receptive vocabulary were not observed (Hargrave & Sénéchal).

Components of effective read alouids. The aforementioned studies illustrate that classroom based read alouds can lead to significant and lasting vocabulary gains; however, there are effective and ineffective methods for reading aloud to children (Beck & McKeown, 2001; Brabham & Lynch-Brown, 2002). The literature describes three primary techniques for reading aloud: dialogic, comprehender / interactional and performance (Brabham & Lynch-Brown; Reese & Cox, 1999). Dialogic reading tends to be better for younger children, while the comprehender and performance methodologies lend themselves better to older students, and whole group instruction. While both comprehender and performance styles involve teacher – student interaction, only the comprehender read aloud offers continual opportunities for interactive dialogue. A comprehender read aloud provides students with information before the story is read, but students are encouraged to ask questions during the reading. The teacher stops periodically asking questions, and emphasizing words she thinks that some or all of the students may not be familiar with. During a performance read aloud the story, plot and
pertinent vocabulary are only discussed before and after the reading. The research is inconclusive, but it is commonly thought that the performance method may be better for more competent readers, while comprehender styles are better for beginning and less skilled readers (Brabham & Lynch-Brown).

In an effort to parse out the potential interactional benefits of the different techniques for read alouds, Reese and Cox (1999) randomly assigned students to different read aloud groups. Students were read to individually several times a week for a 6-week period. They found that students with higher initial vocabularies benefited most from a performance type read aloud. In a similar experiment, Brabham and Lynch-Brown (2002) compared the different styles for first and third grade classes. This whole group model resulted in higher gains for all students in the comprehender group. Both the performance and comprehender condition resulted in higher gains than the just reading, no discussion condition.

Dialogic, comprehender and performance read aloud styles have consistently resulted in higher vocabulary gains as compared to just reading aloud to a child (Beck & McKeown, 2001; Brabham & Lynch-Brown, 2002; Hargrave & Sénéchal, 2000; Whitehurst et al., 1999). Best practice for teaching vocabulary suggests that students should interact with the words and be encouraged to discuss the words (Beck et al., 2002). Through appropriate scaffolding the teacher takes into account the students’ current skills level and background knowledge, facilitating independent derivation of word meaning (Vygotsky, 1986). The read aloud process incorporates Vygotsky’s sociolinguistic theory by maximizing social interactions and all students’ background
knowledge. The relationships between oral and written language are integrated, and students are encouraged to discuss and interact (Wilkinson & Silliman, 2000).

A clear comparison between read aloud methods is somewhat difficult as different measures, group size, and intervention duration have been employed; however, guidelines of consistently effective methods can be gleaned. Beck and McKeown (2001) have written extensively on Text Talk read alouds. Text Talk is modeled after the comprehender style of read aloud, where during the story reading focus is kept on the main story ideas, and discourse is kept open during the entire read aloud. Students are actively involved with the discussion and vocabulary words are discussed in multiple context, using child friendly language. When students ask questions, the teacher is encouraged to repeat the student’s question along with the answer. Teachers should use ‘wh’ questions (e.g., questions that encourage more than a one-word response) (Wasik, Bond & Hindman, 2006). Repeating the child’s question and using more sophisticated language to answer helps broaden the students’ vocabulary (McKeown & Beck, 2006). As observed in home-based studies it is the quality of the interaction, not the quantity that is important (Dickinson & Tabors, 1991). The interactions should be scaffolded, with the teacher asking questions that are answerable but still challenging (Beck & McKeown; Wasik et al.). Interaction is a key component of an effective read aloud, but teachers must keep the student(s) focused on the story and not allow for extraneous and possibly misleading information to be discussed (McKeown & Beck).
Current Read Aloud Implementation

While there has been an increase in the use of read alouds in the classroom (Jacobs, Morrison & Swinyard, 2000), there is an unfortunate research to practice gap. Up to 76% of elementary grade teachers read aloud every day, and almost all report reading aloud at least once a week; however, 90% of those teachers reported that they did so for entertainment, not instructional purposes (Hoffman, Roser & Battle, 1993; Lickteig & Russell, 1993). It was more likely for lower elementary grade teachers to report using read alouds, with upper grades teachers not reporting any perceived value (Jacobs et al., 2000). McKeown and Beck (2003) found through classroom observations that students were not often encouraged to participate in book discussions. They were not asked questions that would help the students learn how to independently process decontextualized text. Of 537 classrooms across 24 states, researchers rarely observed text-based discussion (Hoffman et al.).

Types of texts. It is not only the style of read aloud that varies across classes, but the type of texts used. Texts are generally considered to be either narrative or informational. Narrative texts include fairy tales, mysteries, fables, personal narratives, and any other type of fiction. Conversely, informational texts are used to convey information about things in the immediate environment or world. Informational texts are generally considered to be non-fiction (Yopp & Yopp, 2006).

There are various structural aspects to text, and narrative storybooks typically only provide students with one type of structure. Informational texts expose students to various aspects of text structures. Increased text structure exposure provides students with
knowledge and understanding which will aide him/her when they are asked to comprehend or produce similar types of text (Vukelich, Evans & Albertson, 2003). While reading aloud narrative texts does provide students with valuable vocabulary and exposure to some structural aspects of text (Yopp & Yopp, 2006), informational text illustrates for students how to include factual details, vary sentence length and complexity, use difference voices, and effectively employ figurative language (Vukelich et al.).

Despite empirical studies to the contrary (Duke, 2000; Duke & Kays, 1998), there is a persistent and long-standing belief that young children are not able to understand informational texts (Casbergue & Plauché, 2003). A deficit in U.S. children’s ability to read and write informational text has been identified (Chall, Jacobs & Baldwin, 1990). Although there is no direct empirical evidence, more global academic deficiencies are believed to be linked to this deficit, specifically in the fourth grade. This is commonly referred to as the ‘4th grade slump’ (Chall, Jacobs & Baldwin). Evidence for this supposition is observed by examining the correlation between success in science and problems with informational reading and writing. Students that experience difficulties reading and writing informational texts are more likely to experience difficulties in content areas, specifically science. While this is a correlational and not a causal relationship, the implication is that the ability to read and write informational text is important beyond just reading achievement (Bernhardt, Destino, Kamil, Rodriguez-Munoz, 1995).
It is unclear how much exposure a student needs to benefit (Vukelich et al., 2003), but there is a positive correlation between the number of different types of text a student is exposed to and reading achievement (Duke & Kays, 1998). When considering exposure it is also necessary to consider the background of the child. Children from low SES households typically have less background knowledge. Such knowledge is useful in learning to comprehend. Informational texts can help supplement necessary, but missing, background knowledge (Fielding & Pearson, 1994; Yopp & Yopp, 2006). What is suggested is that students be exposed to informational text sooner rather than later (Chall et al., 1990; Yopp & Yopp).

There is some research to support the idea that preschoolers are able to recognize the differences between informational text and storybooks. The different types of text have been shown to have an influence on their language learning (Casbergue & Plauché, 2003; Duke & Kays, 1998). When young children are exposed to particular genres of text via read alouds, they are more likely to mimic those types of genres when engaged in pretend reading. It was not required that students be provided with explicit genre instruction, only that they be exposed to informational text (Casbergue & Plauché; Duke & Kays). Students were also observed using more informational text type language, such as general statements about the beginning of a book, more classification and contrasts, and their use of the technical vocabulary associated with the informational text was also replicated (Duke & Kays).

It has also been argued that young students do not like informational text (Duke, Bennett-Armistead & Roberts, 2003; Duke & Kays, 1998; Pappas, 1993). This belief has
not been empirically supported. Young children prefer informational and narrative texts equally, depending on the topic. Information books in a particular area of interest will be picked just as often, if not more often, then narrative text written about a less preferred topic (Duke et al., 2003; Duke & Kays, 1998).

Notwithstanding the proposed benefits of early exposure to informational texts, the actual exposure is almost nonexistent (Duke, 2000; Yopp & Yopp, 2006). Duke observed 20 first grade classes, each for four full days. He observed a mere 7 instances of students independently reading or writing with informational texts. The majority of those observed cases were the highest achieving students in reading. In observed first grade classroom libraries, the amount of informational text available was only 9.8% of the total books. This is not that surprising, considering that among the top five first grade basal programs only 12% of the included books are nonfiction (Hoffman et al., 1994). Of the 282 total minutes of written language activity, an average of 3.6 minutes included informational text. Seven of the twenty classrooms spent no time with informational text on any of the four whole day classroom observations. The author also noted that in several classrooms where a particular topic of study was being introduced no informational books on the topic were included in the classroom library (Duke). Jacobs and colleagues (2000) found analogous results. Neither primary nor intermediate teachers spent much time reading informational text.

The current study explores the differences in discussion type and vocabulary growth as a function of text type. The following research questions were explored in order to help determine the relationship:
1. How does language and student-teacher interactions change as a function of text type? For purposes of this analysis, language and student-teacher interactions are measured by considering the following variables: mean length of utterances (MLU) for both teacher and students, the number of ‘wh’ questions asked by the teacher, the frequency of common versus uncommon words spoken by teacher and students, number of children participating in each discussion, and how often the target words are used by the teacher and students.

2. Is there a significant difference in target word learning based on the type of text from which the words were derived?

3. To what extent does initial receptive and expressive vocabulary, post-test target vocabulary scores and the discussion/interaction variables from research question 1 predict receptive and expressive vocabulary skill approximately 14 weeks later?
Chapter 3: Methods

This research study examined the differences in vocabulary acquisition and language use when preschool students are exposed to nonfiction and fiction text during interactive read alouds. Participants included low-income preschool children and regular education preschool teachers. All children were exposed to fiction and nonfiction text, and an interactive read aloud was used across text types. The methodologies for delivering an interactive read aloud were derived from current related research. Standardized expressive and receptive vocabulary measures (PPVT-III and EOWPVT), direct observation and target word vocabulary measures served as the outcome measures. The target word vocabulary measure was derived from the nonfiction and fiction read aloud texts. Tier 2 vocabulary words were chosen (Beck & McKeown, 2001), from the texts, and students were asked to provide a definition of the word.

Participants

Seventy preschool students from three schools in a large urban Southern Californian district participated. Gender was equally distributed with 53% male and 47% female students. All students received English instruction, and Scholastic Early Childhood Program is the district adopted preschool curriculum. The three classes are demographically similar, with an average of 42% of the students identified as Caucasian, 39% Hispanic, 17% African American, and 2% other. Because preschool students are not evaluated for English language proficiency, district data was not available. However, basal on the standardized receptive and expressive vocabulary assessment tools were established for each student.
School and Teacher Demographics

The classes were randomly selected from a large urban Southern California school district. Two of the preschool classes were state funded, and the third was a Head Start classroom. While Head Start classes can contain students with disabilities, none of the children participating in this study were on an Individualized Education Plan. All three classes were afternoon classes, to help prevent against a possible time of day effect. Both programs are designed to serve socially and economically (SES) disadvantaged students. Family income was used to determine eligibility, with the income requirement changing depending on the number of individuals living in the home. Although Head Start preschools are required to have at least 10% of the student population on an IEP. The Head Start class used in this study did not have any students on an IEP. The elementary campuses in which the preschool classes are located have the following percentages of students receiving free or reduced lunch: 60%, 76% and 72%. The schools follow a traditional school year, and commenced summer break at the end of June. The three teachers participating in the study have taught for 12, 2 and 15 years, respectively. Each teacher possessed the necessary Child Development Permit, which requires at least 12 semesters hours of early childhood or child development course work. None of the three teachers had a B.A., or higher, degree.

Procedures

Three separate afternoon preschool classes participated. There were 20, 25 and 26 students in each class. Each of the three teachers implemented an interactive read aloud,
based on the guidelines suggested by Beck and McKeown (2001), five days a week for approximately 10-15 minutes. The implementation occurred over a 12-week period.

The read aloud methodology was held constant across the three classes, and the type of text used for each session was randomly assigned. The read aloud texts used were either narrative or informational. For purposes of this study, narrative text was defined as fictional stories that have a primary purpose of entertaining, while informational text was operationalized as nonfiction text (Yopp & Yopp, 2006). The total number of exposures to narrative and informational text was 60, with 30 sessions using informational text and the other 30 consisting of narrative text. Each of the books was read to the students three times over the 12 weeks, so as to provide repeated exposure to new vocabulary and text structures (Nagy et al., 1987; Penno et al., 2002). Ten read aloud books from each category of text were used, for a total of 20 books.

Teacher Training

Read alouds that promote student interaction have been shown to provide more growth in student vocabulary than read alouds in which students only listen and do not participate (Beck & McKeown, 2001; Brabham & Lynch-Brown, 2002; Hargrave & Sénéchal, 2000; Whitehurst et al., 1994). The components of interactive read alouds that have consistently been shown to result in vocabulary gains were utilized in this study. These components are: (a) focus of the read aloud is kept on the main story idea, (b) discourse is kept open before, during and after the session, (c) students are actively involved in the discussion, (d) unfamiliar vocabulary and target words are discussed, (e)
teachers repeat a child’s question before answering, and (f) ‘wh’ questions are used as often as possible.

The primary researcher and the preschool coordinator for the district provided two, two-hour training sessions for the three teachers. The training sessions were two weeks apart, and an independent level of procedural execution was expected at the second training session. During the training sessions, interactive read alouds using both types of text were modeled. Each component of the interactive read aloud was described and individually modeled. The teachers were asked to perform several interactive read alouds, and were provided with feedback. Additional practice was provided as needed. Prior to the pre-testing, each teacher was observed performing the read aloud in the classroom with her students, using the implementation checklist. During the initial observation, each teacher implemented all components.

Measures

Formal Classroom Observations

Each teacher was observed six times, once every two weeks. Three of the observations were during a read aloud using the narrative text, while the other three were during a read aloud using informational text. Each observation was tape-recorded and video taped. The audio recordings of the read aloud sessions were transcribed by the primary researcher, and a second rater checked to confirm that each session was transcribed correctly. Any transcription discrepancies were discussed between the two raters and were resolved by watching the video and/or listening to the corresponding audio recordings.
In order to ascertain whether the use of informational texts during read alouds resulted differences in language use and student-teacher interactions, as measured by the discussion variables, the transcripts from each read aloud session were analyzed in several ways. These discussion variables included: mean length of utterances (MLU) for both teacher and students, the number of ‘wh’ questions asked by the teacher, the frequency of common versus uncommon words spoken by teacher and students, number of children participating in each discussion, and how often the target words are used by the teacher and students.

Mean length of utterances (MLU). MLU’s are measures of the grammatical complexity of speech (Snow, 1972). Longer MLU’s by adults and students have been shown to result in higher rates of target vocabulary growth (Whitehurst et al., 1988); therefore read aloud sessions producing higher rates of MLU growth should positively correlate with vocabulary gains. The transcripts were analyzed using the Computerized Language Analysis (CLAN) system developed by the CHILDES consortium (MacWhinney, 2000).

‘Wh’ questions. The transcripts were used to calculate the percentage of ‘wh’ questions (i.e., what, where, when, why, and who) asked by each teacher, per session. Such questions help provide an indirect estimation of the level of interaction during the read aloud. The use of such elicitors helps facilitate more in-depth, longer student responses (Beck et al., 2002).

Common versus uncommon word frequency. The CLAN software was used to calculate (MacWhinney, 2000) the frequency of words spoken by the teacher and
students. The resultant frequency list was compared against the Dale-Chall (1995) most common words list. Sixty-five percent of written material consists of the first 300 words on that list, so for purposes of this analysis those were considered common and unsophisticated vocabulary. In order for a word to be considered sophisticated, two criteria were met (1) the word did appear on the 300 most common word list and (2) the word is not a proper noun (Weizman & Snow, 2001). For analysis purposes, the percentage of sophisticated words used by teachers and students was used.

Number of children participating. When students interact during the read aloud, they are more likely to show vocabulary growth (Beck & McKeown, 2001; Whitehurst et al., 1994). For this reason, it is important to have as many students as possible participating during the read aloud. A count of how many different students participated, and how often each child participated in the informational versus narrative text condition was used to aide in parsing out the potential benefits of nonfiction text on the amount of student interaction.

Target word use. The percentage of target words used by the teacher and student was calculated. Target words were those found on the target word vocabulary measures. Each of the target words was written in the inside cover of the book for easy reference by the teacher. The frequency of target word use was included in the analysis, as repetition of target words during a read aloud has been shown to result in higher post-test target word vocabulary (Hargrave & Sénéchal, 2000; Whitehurst et al., 1994).

Fidelity of implementation. During each observation, the implementation of an interactive read aloud was evaluated. The following components were the focus of
integrity checks throughout the session: (a) focus of the read aloud is kept on the main story idea, (b) discourse is kept open before, during and after the session, (c) students are actively involved with the discussion, (d) unfamiliar vocabulary and target words are discussed, (e) teachers should repeat a child’s question before answering, and (f) ‘wh’ questions should be used as often as possible. Fidelity of implementation consisted of direct feedback, teacher self-report as well as frequency counts of the implementation of each component. The implementation checklist is provided in Figure 1.

Each teacher had been informed prior to the beginning of the study that she would receive procedural feedback as necessary. Records taken during the observations showed procedural feedback was provided on five separate instances. Each teacher was given a short debriefing session after the first observation. Feedback consisted of positive reinforcement (e.g. ‘the correct book was read’, ‘you did a good job of asking questions and explaining vocabulary’), and a reiteration of the components of the read aloud. Two of the teachers received procedural feedback after subsequent observations. The first teacher was reminded to repeat the child’s question, and the second teacher was reminded to keep the children focused on the main idea of the read aloud. It was not necessary to provide follow-up modeling of intervention components.

A frequency count of each of the read aloud components was kept during the observation and then transferred into yes or no format. If a teacher implemented each component at least 90% of given opportunities the component was scored a yes for implementation.
Each teacher was given a calendar specifying which book should be read each day. The teacher was asked to place a check next to the date indicating that the read aloud was conducted using the pre-specified book.

*Informal Classroom Observations*

Once a week the type of text being used during the read aloud was checked. The primary researcher made the check, and the date and name of the book was notated for later comparison to the teacher’s self-report calendar. The observation occurred on a random day; however, all teachers were notified that such an observation would happen once a week.

*Vocabulary*

Standardized measures of expressive and receptive vocabulary were administered in order to help evaluate how well pre-test data predicted post-test scores. A test of target word vocabulary knowledge was constructed and used to see if the discussion occurring during the presentation of informational text as compared to narrative text produced different levels of vocabulary acquisition.

*Peabody Picture Vocabulary Test-Third Edition (PPVT-III).* The PPVT-III is a wide-range measure of receptive vocabulary for English speaking students. The measure is individually administered. Students are shown a picture plate, with four different images and are then orally presented with a word and asked to point or verbally identify the picture most closely associated with the spoken word.

The PPVT-III has a median internal consistency alpha of .95, and a median alternate form reliability of .94. Median test-retest reliability is .92. The PPVT-III has an
average correlation of .69 with the Oral and Written Language Scales (OWLS) (Carrow-Woolfolk, 1996) listening comprehension scale and .74 with the OWLS Oral Expression scale. It is correlated at .91 with Wechsler Intelligence Scale for Children-Third Edition (WISC-III) (Wechsler, 1991) measures of verbal ability (Dunn & Dunn, 1981).

Expressive One Word Picture Vocabulary Test-2000 (EOWPVT). The EOWPVT is a wide-range, individually administered, measure of expressive vocabulary. Students are presented with a picture and asked to correctly identify or describe pictures of objects (Brownell, 2001). The EOWPVT has a median internal consistency alpha of .96, and a median test-retest reliability of .90. It has an average correlation with the OWLS, a broad measure of language, of .75 (Brownell, 2001).

Target word vocabulary. Using the guidelines suggested by Beck and colleagues (2002) for selecting Tier Two vocabulary words, three words per book were selected. Tier Two words are words that are likely to be encountered frequently among older, more sophisticated readers. Tier Two words should not be jargon or specific to a particular field.

Students were orally presented with the word. If the student provided the correct definition for the word a score of 2 was awarded. Either a description or a synonym of the target word was considered a correct definition. If the student provided an example of the target word a score of 1 was awarded. Any other responses were scored as 0. Each vocabulary test was double scored and discrepancies were discussed.

Two words were chosen from each read aloud book for a total of 40 target words. There were more than two possible target words to choose from each book, but only two
were chosen in the interest of time. Because preschool students were being tested the lists were intended to be short so as to keep the students’ interest. Twenty were from informational text, and the other 20 from narrative text. Ten words from each the narrative and informational lists were randomly chosen for pre-test, and the remaining 20 words were used for post-testing.

**Administration and Scoring of Measures**

**Administration.** The primary researcher, trained to administer standardized assessments, administered the PPVT-III, EOWPVT, and target word vocabulary test during a two-week time frame before and after the implementation of the read aloud implementation portion of the study. Standardized measures were administered in accordance with the guidelines established by the test authors.

**Scoring.** Standard scores were calculated for the PPVT-III and EOWPVT measures. The aforementioned scoring conventions were used to score the target word vocabulary measure. The CLAN software was used to calculate MLU’s and frequency of uncommon word use. The number of students participating, target words used and the number of ‘wh’ questions were individually counted for each session. Each of these measures was scored twice and inter-rater agreement calculated.

**Inter-rater agreement.** Inter-rater agreement was established using a Kappa coefficient. Kappa coefficients between .4 and .6 are regarded as fair agreement, between .6 and .75 represent good agreement and greater than .75 signify very good or excellent agreement (Fleiss, 1981). Inter-rater agreement was based on two raters, with the primary
researcher serving as the primary coder. Each classroom observation discussion measures and all vocabulary measures were scored twice.
Chapter 4: Results

The data obtained from the target word vocabulary measure, discussion variables and EOWPVT and PPVT-III were used to analyze the three research questions. A MANOVA using the discussion variables (MLU’s, ‘wh’ questions, uncommon/common word use, student participation, and target word use) was used to analyze the first research question: How does language and student-teacher interactions change as a function of text type? An ANOVA analysis using pre- and post-test scores from the target word vocabulary measure was used to answer the second research question: Is there a significant difference in target word learning based on the type of text from which the words were derived? For the first two research questions, a MANOVA and ANOVA, respectively, were administered using teacher as the independent variable. This was done to determine if there was a significant main effect for teacher. A regression analysis using the EOWPVT, PPVT-III, target word vocabulary scores, and the discussion variables from research question 1 were used to answer the third research question: To what extent does initial receptive and expressive vocabulary, post-test target vocabulary scores and the discussion/interaction variables from research question 1 predict receptive and expressive vocabulary skill approximately 14 weeks later?

Statistical Analysis

Discussion and Target Word Vocabulary Measures

Discussion variables. The first research question was evaluated using a one-way multivariate analysis of variance (MANOVA). The following variables were averaged across observation and served as the dependent variables: mean length of utterances...
teacher and students; ‘wh’ questions asked by teacher; uncommon vocabulary used by teacher and students; target vocabulary used by teacher and students and number of students participating. The independent variable was text type (nonfiction, fiction). Means and standard deviations are provided in Table 1. Preliminary checks were conducted to ensure that multivariate assumptions were met. There was a statistically significant difference between fiction and nonfiction text on the combined dependent variables \((F(3, 1) = 719.263, p = .027;\) Pillai’s Trace = .000; partial eta squared = 1.00) (see Table 2). No significant main effects were observed when teacher was the independent variable \((F(3, 1) = 1.079, p = .493;\) Pillai’s Trace = 1.236).

When the results for the dependent variables were considered separately, significant differences between text type and seven discussion variables were observed (see Table 3). The first was the number of uncommon words used by the teacher \((F(1, 3) = 36.211, p = .009;\) partial eta squared = .923]. An inspection of the mean scores indicated that the teacher was significantly more likely to use a higher percentage of uncommon words when administering a read aloud using nonfiction text \((M = .62, SD = .05)\) than when using fiction text \((M = .32, SD = .09)\). Significant differences were also observed in regard to student use of uncommon words \((F(1, 3) = 13.700, p = .034;\) partial eta squared = .820]. Students were more likely to use a higher percentage of uncommon words when being read a nonfiction piece of text \((M = .45, SD = .05)\), than when being read a fiction book \((M = .36, SD = .04)\). A significant effect for target vocabulary use was observed for teachers \((F(1, 3) = 23.151, p = .017;\) partial eta squared = .885] and students \([F = (1, 3) = 45.283, p = .007;\) partial eta squared = .938]. Teachers
were more likely to use target vocabulary during discussion when reading a nonfiction book \((M = 27.67, SD = 5.51)\) than when reading a fiction book \((M = 9.33, SD = 2.08)\).

Students were more likely to use target vocabulary when participating in a nonfiction read aloud \((M = 8.00, SD = 1.00)\) than a fiction read aloud \((M = 1.33, SD = 1.53)\).

Significant differences between mean length of utterances for both teachers \([F (1, 3) = 34.949, p = .010; \text{partial eta squared} = .921]\) and students \([F (1, 3) = 15.875, p = .028; \text{partial eta squared} = .841]\) was also observed. Both teachers \((M = 10.30, SD = .63)\) and students \((M = 4.39, SD = .99)\) were more likely to demonstrate longer mean length of utterances during the nonfiction condition than they were during the fiction read aloud \((M = 7.68, SD = .88; M = 2.34, SD = .06, \text{respectively})\).

**Target word vocabulary.** The second research question was evaluated using a one-way repeated measure analysis of variance (ANOVA). Pre-test and post-test target vocabulary scores were compared across fiction and nonfiction text. Preliminary checks were conducted to ensure that ANOVA assumptions were met. There was a statistically significant difference between pre-test and post-test vocabulary scores \([F (1, 137) = 31.533, p = .000; \text{partial eta squared} = .187]\). No significant main effect was observed when teacher was the independent variable \((F (2, 140) = 1.280, p = .281)\).

Students were more likely to have higher post-test vocabulary scores \((M = 2.51, SD = 2.04)\) (see Table 4) than pre-test scores \((M = .39, SD = .687)\). A significant interaction (see Figure 2) between text type and target word vocabulary scores was also observed \([F (1, 137) = 19.013, p = .000; \text{partial eta squared} = .122]\) (see Table 5). When the words were derived from nonfiction text, students’ post-test scores were higher \((M =
3.01, $SD = 2.09$) than when the words where chosen from fiction text ($M = 2.00, SD = 1.87$).

Initial Vocabulary Knowledge

The means and standard deviations of the pre- and post-test scores are provided in Table 6.

Receptive vocabulary (PPVT-III). A standard multiple regression was employed to determine which criterion variables best predicted the post-test receptive vocabulary score. The criterion variables used were pre-test receptive vocabulary and post-test target word vocabulary scores, and the discussion variables. The following predictors were actually entered into the equation: receptive vocabulary pre-test scores, uncommon words used by the teacher and target vocabulary post-test scores. Results of the analysis revealed a significant predictive equation $[F (1,64) = 204.104, p = .000]$ (see Table 7) for post-test receptive vocabulary performance ($b = .94, p = .000$), accounting for 94% of the variance in a student’s post-test receptive vocabulary score. When each of the variables was examined, the only variable to significantly contribute to the regression equation was receptive vocabulary pre-test scores ($\beta = .89, p = .000$) (see Table 7).

Expressive vocabulary (EOWPVT). A standard multiple regression was employed to determine which criterion variables best predicted the post-test expressive vocabulary score. The criterion variables used were pre-test expressive vocabulary and post-test target word vocabulary scores, and the discussion variables. The following predictors were actually entered into the equation: expressive vocabulary pre-test scores, student participation, ‘wh’ questions, and target vocabulary post-test scores (both fiction and
non-fiction). Results of the analysis revealed a significant predictive equation \([F (1,64) = 79.075, p = .000]\) (see Table 7) for post-test expressive vocabulary performance \((b = .92, p = 000)\), accounting for 86% of the variance in a student’s post-test expressive vocabulary score. When each of the variables was examined, expressive vocabulary pre-test \((β = .89, p = .000)\) and nonfiction target vocabulary post-test scores \((β = .69, p = .033)\), significantly contributed to the regression equation (see Table 7).

A stepwise regression was conducted in order to determine the predictive contribution of the two significant variables (see Table 8). In the first equation expressive vocabulary pre-test scores were entered first followed by nonfiction target word vocabulary post-test scores. Expressive vocabulary pre-test scores accounted for 85% of the variance in post-test expressive vocabulary scores. Adding nonfiction target word vocabulary post-test scores to the equation increased the variance accounted for in post-test expressive vocabulary scores by 10%. In the second equation nonfiction target word vocabulary post-test scores were entered first followed by expressive vocabulary pre-test scores. Nonfiction target word vocabulary post-test scores accounted for 37% of the variance in expressive vocabulary post-test scores. Adding expressive vocabulary pre-test scores to the equation increased the variance accounted for by 49%.

_Fidelity of Implementation_

Fidelity of implementation checklists were completed during each of the direct classroom observations. The observer took a frequency count of each time the teacher implemented each component of the interactive read aloud. Direct observation revealed
that teachers implemented each of the essential components of the read aloud with at least 90% accuracy (see Table 9).

Inter-rater Agreement

Kappas were calculated for each of the discussion variables as well as each of the vocabulary measures (PPVT-III, EOWPVT, target word vocabulary) (see Table 10). Each of the Kappas was above .90, suggesting that the ratings were in good agreement (Fleiss, 1981).
Chapter 5: Discussion

Oral language, including vocabulary, is an important component of becoming a successful reader (Hoover & Gough, 1990; Wilkinson & Silliman, 2000). Specifically, oral language skills for young children significantly predict second (Catts, Fey, Shang, & Tomblin, 1999; Roth, Speece, & Cooper, 2002) and fourth grade (Sénéchal, Ouellette & Rodney, 2006) reading comprehension performance. Furthermore, students with higher oral language skills exhibit a faster rate of growth in decoding skills (Connor, Morrison, & Katch, 2004). The beneficial effects afforded to students with strong oral language skills compound over time, making deficits in early oral language skills increasingly detrimental over time (Stanovich, 1986). The Matthew effect is consistently demonstrated in the vocabulary skills of students coming from lower SES backgrounds. Lower SES minority students have been shown to gain about 3,500 words a year while their higher SES non-minority peers demonstrate vocabulary growth rates of approximately 5,200 words per year (White et al., 1990). Unfortunately, students from low SES households consistently demonstrate lower vocabulary than their higher SES peers (Biemiller, 2006; Hart & Risley, 1995; White, Graves & Slater, 1990).

Early intervention services, like preschool and Head Start, are designed to help supplement literacy experiences that may be lacking in the home environment. Previous research has helped establish evidence-based read aloud practices. Classroom read alouds that provide students with relevant background knowledge, present vocabulary contextually (Beck & McKeown, 2001) and encourage student participation (Brabham & Lynch-Brown, 2002; Reese & Cox, 1999) consistently have been shown to result in
significant vocabulary gains for at-risk low performing preschool students. The existing research in this area has not explored the possible efficacy of using nonfiction texts during read alouds. These types of texts expose children to various structural aspects of text, which are not usually found in fiction text (Yopp & Yopp, 2006); however, nonfiction text is not typically utilized in the classroom (Duke, 2000). The current study examined vocabulary gains and discussion content when evidence-based read alouds were administered using nonfiction text.

Results showed significant target word vocabulary gains in addition to more sophisticated language use when nonfiction texts were used during read alouds. Students were also significantly more likely to learn target vocabulary words chosen from nonfiction text than fiction text. Research findings also showed that initial receptive and expressive language performance significantly predicted skill level 14 weeks later.

*Research Question 1 – Discussion Variables*

The first research question, How does language and student-teacher interactions change as a function of text type, was designed to explore how the discussion variables, mean length of utterances (MLU) for both teacher and students, the number of ‘wh’ questions asked by the teacher, the frequency of common versus uncommon words spoken by teacher and students, number of children participating in each discussion, and how often the target words are used by the teacher and students, changed as a function of text type. The MANCOVA results showed significantly higher use of uncommon words, more target word vocabulary use and longer mean length of utterances for both students and teachers, when nonfiction text was used for the read aloud. In addition, the number
of different students participating during the read aloud was significantly higher during nonfiction read alouds.

Language and Student-Teacher Interactions

Decontextualized language is characterized as containing richer vocabulary and relies more heavily on the words themselves to convey meaning. The use of uncommon words and longer mean length of utterances were variables used in this study to estimate levels of decontextualized language. The benefits of exposing children to decontextualized language have been consistently substantiated in the literature (McKeown & Beck, 2004; Nagy & Scott, 2000; Whitehurst & Lonigan, 1998). While nonfiction text has been shown to utilize a wider array of text structure than fiction text, the possible increased benefits of using nonfiction text to increase decontextualized language exposure and use has not been explored. The results of the current study suggest that teachers are more likely to use longer sentences with more uncommon vocabulary when using a nonfiction book during read alouds. Furthermore, students were more likely to use longer utterances and uncommon vocabulary when participating in read alouds using nonfiction text.

Using an interactive read aloud has been shown to result in more discourse between students and teachers (Reese & Cox, 1999), but the potential interactional benefits of different text types had not been explored. This study expanded on the Reese and Cox research, by focusing on manipulation of the type of text used. The higher rates of decontextualized language used during a nonfiction read aloud may in part be due to a variation of the structural aspects of nonfiction text, and the inclusion of factual and
potentially more complicated information (Yopp & Yopp, 2006). Another possible factor in the increase of sophisticated language use was the increase of target vocabulary discussed during read alouds using nonfiction text. Providing student friendly definitions and concrete examples potentially involves use of less uncommon words. More in-depth discussion of target vocabulary may lead to longer mean length of utterances.

*Target Vocabulary Use*

Despite the long-term benefits afforded to individuals possessing larger vocabularies, the systematic instruction of vocabulary is rarely observed in the preschool or early elementary classroom (Whitehurst & Lonigan, 1998). For purposes of this study, target vocabulary were chosen using the guidelines provided by Beck and McKeown (2002) and teachers were encouraged to develop student-friendly definitions for those words and to introduce them to students within the context of the read aloud. Results showed that target vocabulary was used significantly more often during nonfiction read alouds, by both teachers and students.

Jenkins and colleagues (1984) determined that approximately six exposures to target words was the optimal number of direct exposures for new learning. It is hypothesized that the observed higher rate of target vocabulary acquisition from nonfiction texts can be at least partially attributed to the more frequent use of target vocabulary by teachers and students.

*Student Participation*

Another important component of an effective read aloud, especially for students with lower initial vocabularies, is student-teacher interaction (Brabham & Lynch-Brown,
During these types of read alouds, the teacher provides information and encourages students to answer questions and participate. For purposes of analyzing student participation, both ‘wh’ questions and the number of different students participating in the read aloud were explored. Significantly more children participated during the nonfiction read aloud, but the number of ‘wh’ questions asked by the teacher was not significantly different. The overall mean ‘wh’ questions asked per read aloud was 24.17, with more ‘wh’ questions being asked during a fiction read aloud.

Current read aloud research suggests that teachers will often ask questions about the story or plot (Brabham & Lynch-Brown, 2002). This style of questioning lends itself more to fiction books. This is possibly one reason that a higher proportion of ‘wh’ questions were observed during read alouds using fiction books, albeit the difference was not statistically significant. It is also possible that during a read aloud with a nonfiction book the teacher was more likely to provide necessary background information, instead of asking ‘wh’ questions that the teacher did not feel the children could answer. It is important to note that teachers were instructed to encourage questions, while at the same time to keep the children on track. Beck and McKeown (2002) warn that allowing for too many irrelevant tangents during vocabulary discussion can lead to inaccurate conceptualizations by children. This may be another factor that lead to more ‘wh’ questions during fiction read alouds.

Regardless of the amount of ‘wh’ questions asked during the read alouds, a significantly higher amount of different children were likely to participate in nonfiction read alouds. This is important because both high and low performing students have been
shown to demonstrate greater vocabulary gains when participating in a more interactive read aloud. Teachers were encouraged to include as many students as possible during the read aloud and to redirect the conversations to prevent one or two children from monopolizing conversation (Brabham & Lynch-Brown, 2002; Reese & Cox, 1999).

Research Question 2 – Target Word Vocabulary Acquisition

The second research question examined if there was a significant difference in target word learning based on the type of text from which the words were derived. There was a significant main effect for target word vocabulary gains. A significant interaction was also observed, with significantly higher post-test target word vocabulary scores when the target vocabulary was derived from, and discussed, during nonfiction read alouds. The observed main effect was consistent with related research (Wasik & Bond, 2001), but the interaction effect is a new finding, as experimental manipulation based on text type has not yet been conducted.

Consideration of the differences in discourse and target word vocabulary use during the read alouds helps explain the observed interaction. Two factors, teacher and student use of target word vocabulary and student participation, were both significantly higher during nonfiction read alouds. Both factors have been shown to play a positive role in target word vocabulary acquisition.

In order for students to learn target vocabulary words they need repeated exposure to the words (Jenkins et al., 1984). Furthermore, research strongly suggests that students should receive explicit vocabulary instruction within context (Blachowicz & Fisher, 2000; Coyne et al., 2004). Discussing the target vocabulary during the read aloud
provides relevant context and frequent use of the word(s) affords students with multiple exposures. Related to the use of target vocabulary is the issue of student participation. Research suggests that it is usually not enough though for students to merely be present during the read aloud (Graves, 1989). Active student participation during the read aloud will further facilitate acquisition of target word vocabulary (Reese & Cox, 1999). In the current study, there were a higher number of different students participating during nonfiction read alouds than during fiction read alouds. Involvement of the students is an important component in effective read alouds (Beck & McKeown, 2001), and a higher percentage of student participation should result in higher rates of vocabulary growth. The results of this study help support that supposition.

Research Question 3 – Initial Vocabulary Knowledge

The final research question examined to what extent does initial receptive and expressive vocabulary, post-test target vocabulary scores and the discussion/interaction variables from research question 1 predict receptive and expressive vocabulary skill approximately 14 weeks later. Results from the multiple regression receptive and expressive vocabulary analyses found that the models accounted for 94% and 86% of the variance in post-test scores. In both analyses pre-test vocabulary scores, target word vocabulary scores and discussion variables were entered into the regression equations. The receptive vocabulary analysis showed that receptive vocabulary pre-test scores was the only significant predictor of receptive vocabulary post-test scores. The expressive vocabulary analysis showed that expressive vocabulary pre-test scores and nonfiction target word vocabulary post-test scores were both significant predictors of expressive
vocabulary post-test scores; however, nonfiction target word vocabulary post-test scores only accounted for an additional 10% of the observed variance. As the target word vocabulary measure is similar to an expressive vocabulary measure in that students are asked to provide a definition for a word, it is not surprising that student performance on this measure added to the predictive regression equation for expressive post-test vocabulary scores. It is interesting to note that only nonfiction post-test scores significantly added to the regression equation. This may be explained by the fact that only nonfiction target word vocabulary growth resulted in a significant main effect.

Related studies have reported similar findings (Hargrave & Sénéchal, 2000; Wasik & Bond, 2001); however one study did not find a significant predictive relationship between pre-test receptive vocabulary scores and post-test receptive vocabulary scores (Whitehurst et al., 1994). In the Whitehurst and colleagues study there were methodological reasons that this may have occurred, as basal was not established for all students. The current research study did not have the same ceiling effects, as basal was established for all students.

While it is possible to teach students new vocabulary (Wasik & Bond, 2001), those students with stronger starting vocabularies have an easier time with new vocabulary acquisition (Cunningham & Stanovich, 1997), and demonstrate faster growth rates for decoding skills (Connor, Morrison & Katch, 2004). Essentially those students with rich vocabularies will acquire decoding skills and new vocabulary quicker than their peers with weaker vocabularies. This phenomenon is commonly referred to as the ‘Matthew effect’, where essentially the rich get richer while the poor get poorer.
(Stanovich, 1986). Given that good readers need both strong decoding skills and vocabulary knowledge (Hoover & Gough, 1990; Wilkinson & Silliman, 2000), the lack of a strong vocabulary foundation can have long-lasting negative effects on reading achievement (Dickinson et al., 2003).

In the current study, the pre-test vocabulary scores accounted for a significant amount of the variance associated with post-test scores. The presence of such robust findings suggests that early vocabulary intervention should be a classroom focus, as the cycle of cumulative deficit could possibly be established early in a child’s academic life. Practically speaking, the results from this research question coupled with Stanovich’s (1986) work suggest that research-based vocabulary instruction should begin early. All students, specifically those at-risk, should be provided with direct, context-based, vocabulary instruction (Beck et al., 2002). Interactive read alouds have been shown to be effective methods for incorporating vocabulary instruction; however, the differences between nonfiction and fiction read alouds had not yet been evaluated. The first and second research question associated with this study explored the differences and found significantly higher target word vocabulary growth for those words derived from nonfiction text and discussed during the nonfiction read aloud. Furthermore, significant differences were observed between some of the discussion variables as a function of text type. These factors, when considered together, help further support the position that nonfiction text be systematically incorporated into the classroom (Duke, 2000; Yopp & Yopp, 2006).
**Teacher Effect and Fidelity of Implementation**

When considering direct observations and teacher reports the level of fidelity of implementation was high. All teachers consistently incorporated the prescribed components of the read aloud. It is critical to consider how consistently an instructional practice was implemented, when the effects of that particular practice are being evaluated. In the current study, each teacher implemented each component with at least 90% fidelity in each of the six observations; therefore, the gains made by the children can reasonably be attributed to the instructional changes made in the classroom.

No significant teacher effect was observed for target word acquisition or the use of more sophisticated language. Furthermore, the treatment integrity checks showed that all teachers were implementing the read alouds according to the training provided. When the calendars were collected, all of the teachers reported reading the prescribed books on the correct days. When the primary researcher entered the class to videotape the sessions, the students transitioned well into the activity and some of their comments suggested that they had seen the book before.

Each of the teachers was also observed introducing students to the target vocabulary words provided to them, as well as discussing additional vocabulary that they felt the children did not know. In terms of practical implications it is important that the teachers actually implemented each of the intervention components. In order to bridge the research to practice gap, educational interventions/instructional practices need to be implementable in the typical classroom by the typical teacher. The training sessions provided for this study were not intensive and the teachers implementing the instruction
did not possess advanced degrees in education; however, treatment integrity checks showed the read alouds were being implemented according to plan and the outcomes were significant.

Limitations

Individual students served as their own control in this study, with each student being exposed to read alouds using both nonfiction and fiction books. While significant differences between the nature of the discussion and target word vocabulary growth were observed as a function of text type, it is possible that the results may have been different if the type of read aloud book was held constant across class or students. Future research could experimentally manipulate the text type, but expose groups of children only to one type of text.

Due to the fact that the discussion variables were aggregated for class, the sample size used for analyzing the discussion variables was small. Similar studies have performed the same type of aggregation (Wasik & Bond, 2001) for analysis purposes and were careful to consider statistical assumptions when interpreting results. The current study checked relevant statistical assumptions and the appropriate considerations were taken into account (use of Pillai’s Trace), but it is suggested that future research could include more teachers or analyze individual student performance.

The decision to hold the style of read aloud constant was made as the research has consistently demonstrated that an interactive style of read aloud is effective for both higher and lower performing students (Brabham & Lynch-Brown, 2002; Hargrave & Sénéchal, 2000; Reese & Cox, 1999; Wasik & Bond, 2001). The primary focus of this
study was not to evaluate the effectiveness of an interactive read aloud; however, it is possible that mere exposure to the text in the book would result in similar vocabulary gains. Future research could compare the potential benefits of using nonfiction text, compared to fiction text, using both an interactive read aloud as well as simply reading the story to the students.

The schools in this study were from the same school district, and it is possible that findings may be different in other districts. Specifically, the district participating in the study has received training in preschool literacy practices, and it is possible that this training has resulted in different teaching practices than those observed in comparable districts. If districts without comparable preschool teacher training had participated in the study it is possible that a significant teacher effect may have been observed.

Due to the acceptance criteria for Head Start and state preschool programs, the student sample in this study was disproportionately lower SES. Students coming from higher SES backgrounds typically have heard more words and have higher starting vocabularies than their lower SES peers (Hart & Risley, 1995; White et al., 1990). As pre-test scores significantly predicted post-test scores and students with higher starting vocabularies have been shown to demonstrate faster rates of new vocabulary acquisition (Brabham & Lynch-Brown, 2002), it is possible that students with higher SES backgrounds may not respond the same way or demonstrated the same pattern of vocabulary gains.
Conclusions

Read alouds using both fiction and nonfiction books resulted in significant gains in target vocabulary words, with greater gains observed when words were derived and discussed during nonfiction read alouds. Many of the discussion variables were also observed significantly more during nonfiction read alouds. They were teacher/student MLUs, teacher/student uncommon word use, teacher/student target vocabulary word use and the number of students participating. Student’s pre-test receptive and expressive vocabulary scores significantly predicted post-test scores.

Teacher’s demonstrated at least at 90% rate of treatment integrity across each read aloud component. Treatment integrity was assessed over six direct observations and teacher self report.

Instructional Implications

The impetus for this study was twofold. The first being the need for oral language interventions/instruction for preschool students; specifically those students at-risk, or already demonstrating, receptive and/or expressive language delays. Related to this is the lack of systematic use, or presence, of supplemental nonfiction text in elementary classrooms is almost nonexistent (Duke, 2000; Yopp & Yopp, 2006). In addition, the top five first grade basal programs only 12% of the included books are nonfiction (Hoffman et al., 1994). Implementation of interactive read alouds incorporating direct vocabulary instruction in a relevant context, coupled with the regular use of nonfiction text was proposed as one method of supporting oral language development for preschool students.
Overall results of the study suggest that the sophistication of discourse during the read aloud was increased when using nonfiction text, as was student acquisition of target vocabulary words. These findings suggest that the use of nonfiction text in the classroom can result in positive oral language benefits for students. Teachers can begin to use nonfiction text more frequently for read alouds.

While read alouds using both fiction and nonfiction text result in a significant increase of target word vocabulary, the gains are modest. These types of minimal, but significant gains, are similar to related vocabulary research (Hargrave & Sénéchal, 2000; Wasik & Bond, 2001; Whitehurst et al., 1994). Structured dramatic play (Connor, Morrison & Slominski, 2006) and explicit mnemonic representation training (Robbins & Ehri, 1994) are both activities that have been shown to help increase vocabulary acquisition. Mnemonic representations can be established by helping the child link the target vocabulary word to something in his/her life (Robbins & Ehri). Dramatic play opportunities can be structured to reflect the themes of the read aloud books and can help increase the probability that students will use target vocabulary (Connor et al.)

Teachers can also work with parents to establish solid home reading routines using nonfiction books. To the best of the researcher’s knowledge, estimates of home nonfiction use were not available at the time of this study; however, if the school use of nonfiction books (Duke, 2000) is any indication of nonfiction use/exposure at home there is probably not much nonfiction text being used. Collaborating with parents regarding nonfiction book use at home can help further expose children to different types of text structures (Yopp & Yopp, 2006). Collaboration efforts can also seek to align book use at
home and school, providing students with additional opportunities for target word vocabulary exposure. Additional vocabulary exposure following explicit instruction (i.e., whole class read aloud) can help solidify student vocabulary acquisition (Robbins & Ehri, 1994).

**School Psychologist Implications**

School psychologists are involved with prevention, identification and remediation of academic problems. As the field of school psychology shifts from a reactive to preventative model (Response to Intervention, RtI) it will be increasingly important for school psychologists to be involved in early intervention. New initiatives to help serve students before academic failure has occurred closely involve school psychologists.

Little has been written regarding the implementation of RtI at the preschool level, but Barnett, VanderHeyden and Witt (2007) have suggested a framework of what it might look like. It is very similar to what implementation would look like at the school-aged level, specifically establishing a strong Tier 1 and developing evidence-based targeted Tier 2 interventions. Consultation with both teachers and parents is also suggested as an integral part of successful implementation.

**Tier 1**

School psychologists can help support Tier 1 efforts by consulting with teachers and related staff regarding prevention and the use of evidence-based practice. Given the pervasive and long-term benefits afforded to preschool and Kindergarten students with solid oral language skills (Sénéchal et al., 2006; Snow et al., 1998), curricula specifically targeting oral language and vocabulary development should be included. Prevention
efforts focused on bolstering oral language and vocabulary skills can help stop some students from experiencing the Matthew Effect (Stanovich, 1986). Furthermore, school psychologists can help teachers and staff understand the importance and benefits of using nonfiction text in the classroom (Duke, 2000; Yopp & Yopp, 2006). They can assist in efforts to increase the use and availability of nonfiction text.

Barnett and colleagues (2007) also suggest that at the early childhood level consultation with parents is also an important Tier 1 support. Considering the role that home language has on student vocabulary skills (Hart & Risley, 1995; White et al., 1990), it would seem prudent to help parents develop skills to improve language interactions at home. Whitehurst and colleagues (1988) developed dialogic reading as a method for teaching parents more effective ways to read aloud to their children. School psychologists can be involved with training parents to implement dialogic reading at home. The benefits of using both fiction and nonfiction books at home can be discussed with parents, and both teachers and school psychologists can work together with parents to align the read aloud practices at home and at school.

**Tier 2**

Barnett and colleagues (2007) suggest that remediation efforts at the Tier 2 level focus on providing students with additional practice of necessary skills. Vocabulary is an example of such a skill that could be the focus of targeted interventions. For example, small groups could be used to help increase the student MLU. Whitehurst and colleagues (1988) found that student MLU was a significant contributor to student vocabulary growth. While, it was not a significant variable in this study, it is possible that the effect
was not observed due to the larger group size. In the Whitehurst and colleagues study, student-parent interactions were the focus. Small group read alouds, using fiction and nonfiction text, can help increase student language use.

Additional explicit vocabulary interventions can also be used to help foster vocabulary growth for at-risk preschool students. The explicit aspect of vocabulary instruction is important, as a student is more likely to benefit from later incidental exposures (Robbins & Ehri, 1994). Students can be provided with more exposures and opportunities to use new vocabulary. School psychologists can help teachers and interventionists use related scaffolded activities to further include students with disabilities (Vygotsky, 1986).

**Future Considerations**

Further research should examine the long-term effects of the manipulation of text type on later reading comprehension and reading fluency. The use of narrative and informational text in many classrooms, across economically diverse districts would help determine the generalizability of the findings. The preschool classes used in this study are either State or Federally funded based on the SES of the family. All the students included in the study are from low-income families so the findings cannot be generalized to higher SES students. Students with more or less background knowledge may respond differently to different text type.

Further research could assess students’ reading comprehension and decoding skill at 2nd and 4th grade. The end goal of classroom instruction is that the academic gains made will sustain over time. In order to adequately evaluate possible benefits of different
types of text, the long-term effects should ultimately be considered. In addition the ‘4th grade slump’ (Chall, et al., 1990) could also be explored. Longitudinal studies could investigate the potential benefits of early exposure to informational-based texts on later reading and writing using informational texts.

Children are more likely to learn new vocabulary well enough to use it in their speech and writing when they experience multiple exposures to target vocabulary across various situations (Beck & McKeown, 2002). When students incorporate new vocabulary into their natural routines they are more likely to retain the new vocabulary (Blackowicz & Fisher, 2000; Coyne et al., 2004). It is suggested that the benefits of using nonfiction read alouds in addition to targeted vocabulary activities incorporated into other classroom activities be explored. More significant and possibly longer lasting retention may be observed when students are exposed to target vocabulary obtained from nonfiction texts across a multitude of settings and activities.

Research exploring establishing stronger and more consistently aligned home-school connections could also be explored. Whitehurst and colleagues (1988) found that providing parents with the supports necessary (both training and materials) to provide empirically-based read alouds at home led to significant gains in students’ oral language skills. In addition the efficacy of read alouds in the classroom has also been established (Beck & McKeown, 2001; Brabham & Lynch-Brown, 2002; Hargrave & Sénéchal, 2000); however, the potential increase of vocabulary gains when read alouds at home and school are aligned and vocabulary instruction is reinforced in the home has not yet been explored. Many of the children who experience oral language delays come from homes
where rich vocabulary and decontextualized language is not modeled (Biemiller, 2006; Hart & Risley, 1995). Helping parents not only understand the importance of language development at home, but also providing them with the tools to align their efforts at home with those at school would most likely result in positive oral language development.
Chapter 6: References


Table 1

Means and Standard Deviations of Discussion Variables Across Text Type

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<tr>
<th>Discussion Variables</th>
<th>Nonfiction Text</th>
<th>Fiction Text</th>
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Table 2

Multivariate Analysis of Covariance Results

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*p < .05

69
Table 3

*Analysis of Discussion Variables Across Text Type*

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*Means and Standard Deviations for Target Word Vocabulary Across Text Type and Teacher*

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Analysis of Target Word Vocabulary Across Text Type

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<td>1.126</td>
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<td>0.855</td>
<td>0.056</td>
<td>.852**</td>
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*p < .05, **p < .001
Table 9  
Fidelity of Implementation

<table>
<thead>
<tr>
<th>Component</th>
<th>Teacher 1 (NF)</th>
<th>Teacher 2 (F)</th>
<th>Teacher 3 (F)</th>
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</thead>
<tbody>
<tr>
<td>Focus on Main Story Idea</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Discourse Kept Open</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Students Actively Engaged</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Unfamiliar Vocabulary Discussed</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Teachers Repeat Student Questions</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Text Questions Asked</td>
<td>x</td>
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</tr>
<tr>
<td>Correct Book Read</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>Teacher Report</td>
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<tr>
<td>Calendar Completed</td>
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</table>

NF = Nonfiction  
F = Fiction
Table 10

*Kappa Coefficients for Discussion Variables and Vocabulary Measures*

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<th>Measure</th>
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<tr>
<td>Student MLU</td>
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<tr>
<td>wh' Questions</td>
<td>0.97</td>
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<tr>
<td>Teacher Uncommon Words</td>
<td>0.91</td>
</tr>
<tr>
<td>Student Uncommon Words</td>
<td>0.94</td>
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<tr>
<td>Teacher Target Vocabulary Use</td>
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<td>Student Target vocabulary Use</td>
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<tr>
<td>Number of Students Participating</td>
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<td>Target Word Vocabulary</td>
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<tr>
<td>PPVT-III</td>
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<tr>
<td>FOWPVT</td>
<td>0.97</td>
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</tbody>
</table>
Figure 1. *Observation Checklist*

**Observation Checklist**

Teacher: ___________________________  Date: ________________

Book read: ___________________________  Correct book: Yes [ ] No [ ]

Duration of read aloud: _______________

<table>
<thead>
<tr>
<th>Component</th>
<th>Implemented</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on Main Story Idea</td>
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<tr>
<td>Discourse Kept Open</td>
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<tr>
<td>Students Actively Engaged</td>
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<td>Unfamiliar Vocabulary Discussed</td>
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<tr>
<td>Teachers Repeat Student Questions</td>
<td></td>
<td></td>
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<tr>
<td>‘wh’ Questions Asked</td>
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<tr>
<td>Correct Book Read</td>
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Notes:
Figure 2. Target Word Vocabulary Growth as a Function of Text Type

![Graph showing the growth of target word vocabulary for fiction and nonfiction text types between pre-test and post-test.](image-url)